

Santa Catherina and San Ursula, are very large and lofty buildings, and are both provided with a large quadrangular court in the interior, large enough, in the former, for a garden. Looking to the size of those buildings, and the number of members, who do not (in 1852) exceed in both 43, there must be accommodation of the most spacious kind. The Santa Catherina is placed in one of the most eligible parts of Strada Reale, and in addition to rising above the adjoining houses, one side extends for a considerable way down Strada St. Christophoro. The St. Ursula is also a very spacious and lofty structure. Its front and part of one side in Strada Vescovo overlook and are open to the widest part of the grand harbour and expanse of sea. The inmates of the monastery only occupy the upper floors, leaving in Strada Levante several mezzonini and ground floors underneath, the inhabitants of which, though in pratique, were equally exempt—an immunity probably derived from the free exposure to the harbour; for in Strada San Ursula behind, where the entrance to the monastery is placed, there were numerous cases of plague.

These circumstances are so much in accordance with what will be found to obtain, wherever there was free ventilation, or the reverse, that I consider it almost superfluous to describe the monasteries of Santa Margarita, in Cospicua and San Scholastica in Vittoriosa. The first is nearly isolated, built on a similar plan to those in Valetta, and, standing on one of the highest points, has free exposure to the harbour. The San Scholastica has three of its sides closed in by houses in one of the most crowded parts of Vittoriosa, but is otherwise unquestionable in a sanitary view, having a very spacious court in the interior, and, on the side chiefly inhabited, a free and extensive exposure to Bighi Bay. The San Benedetto, at Notabile, containing twenty-nine members, is also isolated and spacious. It stands on one of the highest and healthiest spots in the island, and is separated by fortifications from the village of Rabbato, almost the only place affected in this locality. Here the per centage of deaths, including Rabbato and Dingli, was only 0.96, while in Zebbug, Birchircara, and Curmi, each having about the same population, it amounted to 14.46, 5.33, and 14.86 respectively. Nor was Notabile less fortunate in previous visitations. In 1593, when nearly 3,000 persons died, it had only seven deaths (Parisi, p. 56), and in 1676, when upwards of 8,000 perished, it remained intact (Hist. della Sac. Relig. p. 448).

Locality, however, is not needed to explain the exemption of the monasteries. They possess within themselves abundant sources for the maintenance of health; their large interior courts insuring light, dryness, and ventilation to the whole building. Dr. Hennen computed that there were only about 6,000

attacks in the towns; segregation is therefore unnecessary to explain the exemption of 100 retired ladies, distributed in five spacious and unexceptionable mansions.

There are fifteen convents in the island, which contain (in 1852) 230 members, more than double the inmates of the monasteries. Considering the probable exposure of the former in the infected localities, at the outset of the epidemic, they were nearly as exempt as the latter. As far as the bulletins assist me, out of 20 deaths among 1,007 clergymen, 3 of the Capuchins* at Floriana, and 2 in St. Augustine's, in Valetta, died in convents. Of the remainder, 2 died in the Pest Hospital, 1 in the collage formerly of the Jesuits, and 2 in villages, while 10 died in houses situated in the most infected localities of Valetta. The convents are remarkable for good and elevated sites, and, from their size and construction, were free from those conditions which favoured the disease.

The alleged escape of 900 prisoners in the Grand Prison, by means of quarantine, deserves some notice. Had not the bulk of the population, and six entire villages also, escaped, this would be one of the strongest cases brought forward in favour of segregation—not from the circumstance of the disease prevailing in the immediate neighbourhood, for there are numerous and more remarkable examples of exemption under similar circumstances; but that 900 persons thrown together, under the conditions in which prisoners are usually placed, should have remained free. This is the only point requiring explanation.

The prison in question is a lofty quadrangular building, standing on the brow of a hill fronting the grand harbour. It is isolated, being bounded by Strada St. Ursula in front, the ramparts behind, Strade St. Christophoro and Pozzi on either side. It consists of three stories, and occupies a nearly equilateral space about 400 paces in circumference. The interior is now seen to disadvantage: it is neglected, and in many parts dilapidated, the prisoners being accommodated in the new prison, but Dr. Hennen speaks of it as being “conducted on excellent principles; the rooms and airing ground are of ample size; the different grades of crime and the different sexes are duly separated; several useful manufactures are carried on within the prison walls, and the food is whole-some and abundant (pp. 470, 471).” The large quadrangular court, into which very large windows open from the two upper

* The numbers in the Capuchin convents at Floriana are greater (39) than any other; and it is probable that, having to beg their daily supplies of food, they were more exposed than the wealthy orders. The Baron de Piro (p. 47) notices another cause, namely, that those monks visited the sick in the Barrache at Floriana.

floors and smaller ones from the basement, is disposed into separate grounds for exercise, and is exceedingly dry and airy. There is thorough ventilation in all the rooms above the basement; large windows open on both sides, and except in two or three of the cells, windows are placed in all the sleeping-rooms on the ground floor, opening on a spacious colonnade, the only objection being that they are on the same side as the doors.

This prison was common to the whole island, and, except a portion of the upper floor, appropriated to the sick of the Navy; it was then occupied by French prisoners, and the ordinary criminals. Taking the average number of the latter for the last 20 years, viz., 174, the probable number of French would be about as six to one; and as prisoners of war, guilty of no crime, we may assume they had not only better accommodation, but were more indulgently treated than the criminals. The latter, inured to the climate, though occupying the worst part of the prison, were infinitely better circumstanced than the inmates of the hovels outside, to which, it is probable, the bulk of them had been accustomed from infancy. Under cleanliness, good diet, fresh air, and social intercourse, for the construction of the building shows that the solitary system did not obtain, there was much more in their favour than those who were prohibited leaving their houses, except between the hours of 6 and 10 in the morning, and eventually not at all.

The only question is what number slept in the same room; but many of them having been withdrawn about the 12th of May, to be employed as beccamorti, scavengers, &c., there could have been no injurious crowding with the number left. In site, drainage, and ventilation, and probably in the number of cubic feet to each individual, the prison could not be inferior to several of the barracks occupied by large bodies of soldiers, exempt from the disease.

The alleged immunity of the prisoners however, can only apply to the French; for in the bulletin of 22nd May, we find under the head "fallen sick under suspicious symptoms." Michele Zammitt, in that of 30th, Serafino Morretti and Vito Corvo, "Forzati," both of whom died on the 1st and 6th of June respectively, at Fort Manoel; on the 1st June, Giov. Maria Ciantar and Francesco Galea, "Forzati," both of whom died at Fort Manoel on the 2d and 3d respectively; on the 2d of June Francesco Farrugia, who died at Fort Manoel on the 4th; on the 9th June, "died in the Grand Prison, Giov. Checuti;" on the 10th June, Giuseppe Casha; on the 22nd, "died in the Grand Prison, Antonio Busitill, guardian;" and on the 8th July, Ann a Casar, who died in the Pest Hospital on the 11th; all attacked "*in the Grand Prison.*"

The circumstance most dwelt on in the history of the prison is, that all the criminals liberated to act as Beccamorti, fell victims to the disease. The majority of them were employed in Valetta and Floriana, and a portion at Fort Manoel and the Lazaretto. Most of them had been condemned for long periods for flagrant crimes, and are represented as men of the most profligate and reckless character. The Baron de Piro (p. 50) says. "In the midst of so many calamities, which all testified, "the divine wrath, and with which every one was menaced, even "crime was not arrested, but prevailed most in those places, "where the scourge fell heaviest. There in a mingled confusion "of sex, age, and condition, the lascivious dared to satisfy his "criminal desires, and the avaricious to possess himself of the "goods of another, whilst both frequently fell victims to their "delinquencies. To such evils were added the cruelties committed by those unfortunate wretches, at once too useful and "vicious; I speak of the prisoners above alluded to. Besides the "fear they inspired as malefactors loaded with crime, whose "touch was pestilential, their red and black coloured clothes "which covered them from head to foot—their reckless look—their rough and bronzed countenances, which appeared from "under their hoods, carelessly placed upon their heads—all "presented something awfully sad and horrible, appearing to "the timid as malignant genii destined to preside over human "destruction. The houses to which they were unfortunately "called, and where the afflicted inmates looked to others for "succour, became to them places for assault and conquest. There "they committed plunder, forced the sick and the well to disclose "the repositories of their money, ill-used the dying, whom on some "occasions they threw into the same cart with the dead, and with "polluted hands dared to violate desolate women. Notwithstanding, it was impossible in those fearful times to put a stop to all "their wickedness, for no guard could venture, without personal "risk, to watch them where they intrepidly penetrated. They had "arrived at such a degree of audacity, that recourse to arms was "frequently necessary to drive them out of the places where they "hoped for plunder, or to oblige them to work. Those houses, "therefore, that remained empty, and from which they had to "remove furniture or any other susceptible article, were visited "by them with the greatest delight; and, with the avidity of "enemies plundering the vanquished, ran into every corner, "searching in garrets, in cellars, and groping in every little hole "for money, jewellery, or any other article of value they could "conceal under their garments. But alas! Fools, to what "advantage? They were swept away, one after the other, and "all that was amassed was enjoyed by none of them."

It will hence appear that no part of the population was at once more susceptible of or more exposed to the climatic and accessory causes of fever than those prisoners; brought from the monotony and repose of a prison into scenes affording scope to every vicious indulgence; exposed to the sun with the most disgusting and fatiguing work in the infected localities; sleeping in miserable huts, with diet, and conduct almost at their discretion—they were like strangers suddenly transported from order, quietude, and regularity, into the midst of confusion, excitement, and pestilence. I can find no particulars as to where or under what form of disease those men died, nor even of their numbers; but we may imagine that, dreaded and shunned by every one, their complaints had no early or proper attention, conducing to recovery.

A somewhat different fate under more restraint, but not less exposure to contagion, awaited 12 men employed in Fort Manoel. According to Gabriele Cauchi, who was there for 50 days as senior guardian, of 12 beccamorti only five died. This man further states, that of 17 guardians who were there with him, though they had no direct communication with the sick, he was the only survivor:* also that he touched plague patients almost every day, and, under the direction of the doctor, opened the corpse of a pregnant woman for the purpose of christening the infant, with entire impunity. Instances of the disease without exposure to contact with the sick, and resistance to it under the greatest, are so numerous as not to be reconcilable with the views described as universally entertained in Malta.†

Great numbers of French prisoners, besides those in the Grand Prison, were in Malta during the epidemic. The bulk of them were accommodated in a very large detached building, called the Verdala Palace, situated about two miles from Citta Vecchia, and one from the village of Dingli, which had only one death. The locality, in point of healthiness, is one of the most unexceptionable in the island.

In a pamphlet published in 1841, by Dr. Luigi Gravagna, Principal Physician of Quarantine, there occurs the following: "The government offered liberty and some reward to those French prisoners who would volunteer to assist in the general sanitary arrangements. I repaired to the prison to make the proposal: 60 of them immediately accepted. I employed them in the public service, some of them were soon attacked, others successively, and almost all died of plague, so that at the end

* After the occurrence of the first case he occupied a room by himself.

† According to Mr. Garcin, of forty Greeks employed in the Lazaretto as beccamorti, not more than ten died.

"of 20 days I had to return to the prison to repeat the offer; some accepted, but unfortunately in a short time they shared the fate of the first."*

The most extended inquiries have convinced me there is some fallacy in this statement; that some failure in memory or error in transcribing has caused the criminals to be confounded with the French prisoners. The latter were in no instance employed with or near the sick; they acted as scavengers, expurgators, &c., and all with whom I have spoken, concur in stating that no death occurred amongst them. No notice is taken of these men by Hennen, Tully, or De Piro, or can I find a single French name in the bulletins. Further, an eye witness, Mr. Satariano, son of the superintendent of these men, as also Jean Chevalier, himself a prisoner in 1813, confirm, without qualification, all I have collected from other sources.

It is stated that several prisoners of war, *not French*, were employed subsequent to the criminals, but particulars regarding their number or the kind of employment are too vague and contradictory to be of use. Mr. Skinner, surgeon to the prisoners of war, states that the disease "was principally confined to the indigenous inhabitants. Few of the Turks or Greeks resident in Valetta were attacked, if we except those of the lower class of Greeks, who, in common with the felons, were engaged in the hazardous employment which the exigencies of the occasion required. Other foreigners were equally exempt, and the British peculiarly so." (Med. and Phys. Journal, vol. 33.)

There is a very general belief that the troops entirely escaped the plague, and it has been alluded to in such a way as almost to confirm this belief. It will appear, however, from the bulletins, that notwithstanding the rigid isolation and comparatively superior conditions under which the men were placed, the disease found its way into four, if not five, different barracks, lying at points distant from, and having, it is probable, no intercourse with each other.

In the bulletin of 28th of June, we find one serjeant and five soldiers of De Rolls' regiment "fallen sick under suspicious symptoms," and one of the same corps dead in the barrack, formerly the "Albergo d'Italia;" in that of the 30th, three more of this regiment appear under the head "fallen sick, &c."† Same date, a death in the Regimental Hospital of De Rolls. On

* Dr. Gravagna's pamphlet appears to have been published to prove the communication of the plague by simple contact in the open air. He has not been happy in the selection of the particular instance (the boatman Cauchi) on which he rests his conclusion.

† The only cause assigned by Sir Brock Faulkner for the disease in this barrack was "their barrier admitting a contact with persons outside. It was a barrier at which you could shake hands with any body on the outside."—*Report of the Select Committee*, 1819, p. 51.

the 5th of July one of De Rolls "fallen sick;" 8th, another of the latter corps "fallen sick," and a death in the Military Pest Hospital; 16th, the wife of a serjeant of artillery "fallen sick," at St. James's Cavaliere; 22d, two deaths in the Military Pest Hospital; 23d, three soldiers of De Rolls "fallen sick;" 26th, one death and another "fallen sick" in the same corps.

Up to the 27th of July the bulletins almost invariably notice the exemption of the "navy, military (with the exception of the "reported cases in the regiment of De Rolls), and prisoners "of war." After this all notice of the kind is omitted, and obviously for the reason that the British troops were no longer free. In the bulletin of the above date, the period about which for a long succession of years the ordinary fever has attained its acme, there appears the following:—"In barracks, a soldier of "the Royal Artillery fallen sick." In the same bulletin, under the same head, "In barracks, two soldiers and a woman of the "3d Garrison Battalion," at Floriana; also two deaths in barracks, one of De Kolls, the other of the 3d Garrison Battalion.

In the bulletin of 1st August, six persons are reported as having recovered in the Military Pest Hospital, among the names of whom we meet with those of "Private Steff" and "Drummer "Bone." On the 3d, another of De Rolls is reported "fallen sick;" on the 7th, a death in the same corps, in the Military Pest Hospital; 13th, one of the 3d Garrison Battalion "fallen sick;" 20th, a death in the Military Pest Hospital, and two "fallen sick" of the 3d Garrison Battalion; and on the 23rd, another of this corps is reported as "fallen sick."

No more cases are noticed in the Bulletins, but Dr. Calvert states (Med. Ch. Tran., vol. 6), that the 3d Garrison Battalion "became again infected" (at the beginning of October) "after "remaining free the whole month of September." The first case (a woman) after remaining a week in barracks under the disease, died on the 22d October; a second was attacked on the 16th; a third on the 20th; two more on the 23d, in barracks, and the servant to the town adjutant, in Valetta. On the 24th the regiment was moved to Ricasoli. "Immediately after its "arrival there several (4) suspicious cases occurred." (Idem).

The mansion (now the Civil Arsenal) in which De Rolls regiment was accommodated, though of excellent construction, and placed in the highest part of Valetta, is not half the size of St. Elmo, and is in the midst of houses. Presuming that this regiment was equal in strength, namely, 1,000, to the others, and the consequent necessity of occupying the ground-floors and low pitched mezzonini, it is probable that crowding here countervailed

the advantage of elevation, for it is one of the very few exceptions in which elevation did not afford protection.

The barrack of the 14th regiment, (Lower St. Elmo) mentioned by Sir Brook Faulkner in his examination before the Select Committee, in 1819, as having escaped the plague, with the exception of one suspected case "though near the most unhealthy "part of the town," is, except Forts Manoel and Ricasoli, the best barrack in the command, being not only more spacious, open, and better ventilated, but the barrack-yard and adjoining batteries, close to the sea, afford more space for exercise than any other. In the cholera of 1850, while the 44th regiment, occupying Floriana (the barrack of the 3d Garrison Battalion in 1813) and two similar barracks in Cottonera, all much shut in by other buildings, had 141 attacks and 95 deaths, or 7.81 per cent. of its strength, 1,215 (including women and children); the 69th, in St. Elmo, 1,218 strong, had only 51 attacks and 17 deaths, or 1.39 per cent., though continuing throughout to occupy the same barrack, while two of those of the 44th required to be early abandoned; and it is deserving of notice that the barrack (Fort Ricasoli, *see map*), to which the head-quarters of the latter was moved, and with immediate check to the disease, is the same to which the 3d Garrison Battalion, in 1813, seems to have owed the arrest of the plague.

Most of the barracks in 1813, as at present, were casemated, and forming part of the fortifications, with very indifferent ventilation; but improvements in that respect have taken place within the last few years. The comparatively few cases of plague, therefore, among the troops is a matter for more surprise than in the prison; but is attributable in both cases to the inmates being under the very opposite conditions to those of the population chiefly attacked, namely, freedom to breathe the open air during the day, and better ventilation at night.

It is true the military were rigidly isolated, but what part of the town population was not? A reference to the restrictions (see p. 79), imposed on the inhabitants of Valetta and Floriana from the 19th of May, will show that those who were attacked, were virtually under as rigid quarantine as those who were segregated. Watched by the deputies and masters of houses, and confined to their own district, and for 20 hours out of the 24 to their hovels, there was in fact no intercourse, except among the members of the same family; and even these, we may suppose, exercised every caution, for contact of the most trifling kind seems to have been universally dreaded.

No portion of the population was more likely to avoid contact than the volunteer guards employed in the several districts, for the purpose of preventing any infraction of quarantine. From

the commencement of the epidemic to the middle of July, during which the restrictions were less rigid, and the liability to exposure, therefore, greater than it was subsequently, very few of them appear in the bulletins. From the latter period to the 4th of August, when the Urban guard, composed of householders, was organized to assist them, 41 are reported as having "fallen sick" and died. After this, to the end of September, they suffered to a nearly equal extent. Now, by the proclamation of 17th July no person was permitted to be out of his house, except between the hours of 6 and 10 in the morning; by that of the 2d August, "absolute retirement of all the inhabitants of "Valetta and Floriana" was enforced, "with the exception of "such persons only as may be required to go out by the special "exigencies of the Government, or who may be engaged in the "supply of provisions to the community, and in other indispensable branches of the public service;" and as at this time the penalty of death was incurred by any one found entering an infected house, it is difficult to understand how the agents—the *bona fide* delegates of the Board of Health—empowered to carry these measures into effect, could have suffered to such an extent solely by intercourse with the diseased.

Something more conclusive of the inutility of segregation is to be found in the shipping. By the proclamation of 7th May, "Crews on board ship were to consider themselves in quarantine;" on the 22d, "All communication with the shipping was to "cease after sunset;" 15th June, "No one to leave his ship "without a written permit, and no person to be admitted on "board any ship;" and on the 8th July the restrictions were still more severe. Notwithstanding, on the 9th May, a case of plague is reported on board a vessel in St. Paul's Bay; on the 6th June, a case is reported, "fallen sick under suspicious "symptoms," on board the "Monarch" Transport; on the 13th a death from plague on board the "Corsale il Coragioso;" 23d, one "fallen sick" in the "Penelope;" 1st July, a death from plague in the "Bella Virgine;" 2d, one "fallen sick" (afterwards dies) on board the "Mabruc;" 14th, one "fallen sick" on board a "Sparonara;" 15th, a death from plague in "La "Guiditta;" and on the 16th one "fallen sick" in "La Bella.*" From the 9th May to the 16th July, 9 vessels became infected; and there is a correspondence in the number and severity of cases

* Dr. Hennen, after stating his belief that the plague is never propagated, except by contact, adds in a note, "Would it not (infection) also have infected the shipping in "the great harbour during its passage across? but the shipping in the great harbour "was not affected," p. 511. Now in two of the vessels, the great harbour is specified, in the others it is simply stated "in port." It is, however, due to Dr. Hennen to state, that he "made many enquiries after a copy of the original notices (bulletins), but in "vain."—Note, p. 253.

with the progress of the disease on shore. Thus in May 1, recovered 1; in June 3, recovered 2; in July 5, recovered 2; and that there may be no question as to the cause of death in the above cases, which all appear in the bulletins, I extract the following from the bulletin of 14th May:—"N.B. Neither in the "present or in the former bulletins have any deaths been noticed, "but such as have been occasioned by direct plague, or attended "with most suspicious circumstances, as have been always particularly specified." This may be considered as a guarantee for the unequivocal character of all cases inserted in those documents; for the disposition of the authorities appears to have been rather to curtail than magnify the number of the sufferers. It is, indeed, believed that the deaths are considerably understated in the bulletins.

Although the connection of the disease with locality may not appear to be borne out in every case, the collective evidence on this point is conclusive.

I employed a competent and trustworthy Maltese (Mr. Guiseppe Scicluna) to visit every house in Valetta in which, according to the official bulletins, plague occurred, in 1813; and as the numbers of the houses are the same, the result may be considered as substantially correct. The subjoined summary will show the immense preponderance of sickness among those living in the worst houses and most questionable localities.

TABLE, drawn from the daily Official Bulletins, showing the number and description of the houses in which cases of Plague occurred in the Epidemic of 1813.

| Total No. of the Streets attacked. | Total No. of Dwellings attacked by Plague. | Total No. of Cases of Plague in the Streets attacked. | Description of the Habitations attacked. | | | | Their Ventilation. | | | | By whom Inhabited. | | | | Class Inhabiting the Houses. | | |
|------------------------------------|--|---|--|----------|-------------|---------|--------------------|----------|-------|--------|--------------------|---------------|-------|--------|-------------------------------|-------|--------|
| | | | Ground Floors. | Cellars. | Mezzoninos. | Houses. | Good. | Partial. | None. | Total. | Respectable. | Middle Class. | Poor. | Total. | Respectable and Middle Class. | Poor. | Total. |
| 49 | 564 | 1,131 | 252 | 44 | 141 | 127 | 107 | 170 | 287 | 564 | 87 | 94 | 383 | 564 | 84 | 43 | 127 |

There may have been alterations in several houses since 1813, as also in the class of occupants, but these are so few as not to affect the general result, which may with safety be accepted as a close approximation; moreover, any difference would probably be in favour of the influence of local conditions; for the population of Valetta being at that time larger by several thousands, and house rent much higher, we may presume that crowding obtained more than at present. The Official Bulletins give the name and